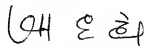


## DECLARATION

I, Eun Hee Bae, of DOWON International, SinWon BLDG 5<sup>th</sup> Floor, 823-14, Yeoksam-Dong, Kangnam-Gu, Seoul, 135-080 Korea, understand both English and Korean, am the translator of the English document attached, and do hereby declare and state that the attached English document contains an accurate translation of Korean patent application no. 10-2004-0002207 and PCT/KR2004/000363 and that all statements made herein are true to the best of my knowledge.

Declared in Seoul, Korea  
This 26th day of November, 2009



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Eun Hee Bae

**【Abstract】**

The present invention relates to golf gloves having improved fixability and compactability for a grip, in which the root between an index finger portion and a thumb portion and the upper portion of them are generally connected with each other and thicker than other portions of the golf glove to allow a golfer to grasp the grip of a golf club fixably and stably, and the index finger portion and the thumb portion are thicker than other portions to minimize a gap between them, so that the golfer can grasp the grip of the golf club naturally and firmly without a great grasping power.

**【Representative Drawing】**

FIG. 1

**【Key Words】**

Golf glove, thenar, grip

【DESCRIPTION】

【Invention Title】

GOLF GLOVES HAVING IMPROVED FIXABILITY AND COMPACTABILITY FOR GRIP

5 【Description of Drawings】

FIG. 1 is a front and rear view of a preferred embodiment of the present invention.

FIG. 2 is a partially sectional view of FIG. 1.

10 FIG. 3 is a side view of the preferred embodiment of the present invention.

FIG. 4 is a front and rear view showing a state in which a soft implant material is contained in a side of a filling portion.

15 FIG. 5 is a sectional view showing the state in which the soft implant material is contained in a side of the filling portion.

FIG. 6 is a perspective view showing a state in which a grip is grasped by a conventional golf glove.

20 FIG. 7 is a perspective view of the preferred embodiment of the present invention.

FIG. 8 is a perspective view showing another state in which the grip is grasped by a conventional golf glove.

25 FIG. 9 is a perspective view showing the preferred embodiment of the present invention.

<Explanation of essential reference numerals in drawings>

2: base part                      10: filling part

11: the first knuckle portion of the thumb

12: the first knuckle portion of the index finger

30 13: thenar portion of the index finger

14: wrist portion              15,40: soft implant material

G: grip

30: gap between the thumb and the index finger

**【Technical Field & Background Art】**

The present invention relates to golf gloves put on a  
5 user's hands, which grasp a grip of a golf club. More  
particularly, the present invention relates to golf gloves  
having improved fixability and compactability for a grip, in  
which the root portion between an index finger portion and a  
thumb portion and the upper portion of them are generally  
10 connected with each other and thicker than other portions of the  
golf glove to allow a golfer to grasp the grip of a golf club  
fixably and stably, and the index finger portion and the thumb  
portion are thicker than other portions to minimize a gap  
between them, so that the golfer can grasp the grip of the golf  
15 club naturally and firmly without a great grasping power.

The present invention also relates to golf gloves having  
improved fixability and compactability for a grip, which can  
provide fixability and a stable compactability with a small  
power when a golfer grasps a grip of a golf club, and can  
20 position a thumb and an index finger at a proper grip location.

Conventional golf gloves have been manufactured in priority  
to quality of materials and feeling transmitted to the golfer's  
hands when the golfer grasps the golf club. Therefore, in fact,  
in the golf field, there has been a remarkable development in  
25 tactile sensation and quality of materials. However, as people  
who enjoy golf and quantity of motion are increased, fatigue of  
the golfer's hands is increased, and there occur various  
diseases such as Stenosing tenosynovitis, commonly known as  
"trigger finger"(injury of a ligament of a little finger  
30 portion). Furthermore, in view of the present status of the  
science-oriented and up-to-date golf technology, it is needed to  
develop golf gloves of more improved function through a

structural development besides the tactile sensation of the golf gloves. So, prior arts will be reviewed on the basis of functions of the golf gloves of the prior arts in brief.

Korean Utility Model Application No. 20-2003-0005706  
5 discloses a golf glove having the back hand part made of elastic net. In the golf glove having the back hand part made of the elastic net, the bottom part surrounding the palm portion and the lower portion of a wrist portion is made of synthetic resin fabric of weak elasticity, and the back hand part surrounding  
10 the back of the hand and the upper portion of the wrist is made of the elastic net. Moreover, an open part for allowing an easy wearing and a bonding part for bonding the open part are located at a region where surrounds the end portion of the wrist portion of the bottom part, have an excellent air-permeability, allow  
15 smooth movement of fingers, and remove oppressive sensation felt when the golfer wears the gloves.

Korean Utility Model Application No. 20-2002-0021038  
discloses a golf glove for maintaining right swing posture. The golf glove includes an interior grip grasping indication part  
20 formed at a portion of a region where four fingers excepting the thumb meet with the palm part, an exterior grip grasping indication part of a "V" shape formed on the thumb portion and the index finger portion of the back hand part, a straight direction point formed on the root between the index portion and  
25 the middle finger portion of the back hand part, and a swing posture guide table attached on the lower end of the back hand part. The golfer grasps the grip along the interior grip grasping indication part. At this time, the exterior grip grasping indication part forms the "V" shape between the thumb  
30 portion and the index finger portion of the back hand part, and the golfer fixes the back of the hand in such a manner to see the straight direction point of the index finger portion and the

middle finger portion of the back hand part so that the golfer grasps the grip in a proper swing posture. After that, the golfer sees the swing posture guide table attached on the lower end of the back hand part, and swings the golf club to hit the ball as described in the table. Therefore, the prior art can help the golfer to always swing in the right swing posture.

Korean Patent Application No. 10-2001-0033058 discloses a golf glove for fixing a grip. The golf glove includes: a glove body having detachable fastener fixing portions, the fastener fixing portions being respectively disposed on the middle finger portion, ring finger portion, little finger portion and thumb portion of the back hand part put on a golfer's hand grasping an end portion of a grip of a golf club; an elastic band body of a predetermined width for maintaining grasping power of the three finger portions by surrounding and fixing the exterior side of the three finger portions at proper pressure, the band body having detachable fasteners mounted at both end portion thereof, the detachable fasteners being bonded to and separated from the detachable fastener fixing portions in correspondence with the detachable fastener fixing portions; and a grip band connected with the glove body. The prior art can allow the golfer to maintain grasping power to the essential portion of the grip by the grip band without regard to the golfer's physical condition by surrounding and fixing the grip band to the glove body, thereby allowing the golfer to grasp the grip in a natural condition, minimizing instable hit and loss of driver distance, and maintaining the golfer's grasping condition as it is.

Korean Patent Application No. 10-1995-7001152 discloses a golf glove having marks formed on the rear surface of the golf glove corresponding to a golfer's knuckle portions, wherein the golfer can easily see the marks with eyes. The golf glove allows the golfer to rapidly know a position of his/her knuckle located

at a desired position on a grip of a golf club. The marks are indicated on the golf glove, or for the marks, pieces of fabric are arranged on the golf glove to be easily shown.

5 Additionally, there are lots of golf gloves such as golf gloves for minimizing bending of the wrist by having a fixing rod between the back hand part and the wrist part, golf gloves having good compactability with the golfer's hands by providing various rubber bands.

10 As described above, golf gloves of various types having lots of functions have been developed, but a highly functional golf glove is needed, which can reduce fatigue of the golfer's hands due to long-time exercise by increasing fixability to the golf club, and allow the golfer to grasp the golf club in exact and stable condition by controlling a grip grasping posture.

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#### **【Disclosure】**

#### **【Technical Problem】**

Accordingly, the present invention has been made in view of the above problems, and it is an object of the present invention  
20 is to provide golf gloves having improved fixability and compactability for a grip, which can increase compactability to a grip with a small grasping power when a golfer grasps a golf club by making the thenar portion thicker than other palm portion of the golf glove, and prevent an idle rotation of the  
25 golf club by increasing compactability of the thenar portion to the grip, and which can locate the index finger portion and the thumb portion at the right positions naturally when the golfer grasps the golf club by integrating the root between the index finger portion and the thumb portion and the upper part thereof  
30 and making them thicker for the golfer's stable and exact grasping, thereby minimizing fatigue due to long-time exercise and preventing improper grasping of the grip.

**【Mode for Invention】**

FIG. 1 is a front view and a rear view of a preferred embodiment of the present invention, FIG. 2 is a partially sectional view of FIG. 1, FIG. 3 is a side view of the preferred embodiment of the present invention, FIG. 4 is a front view and a rear view showing a state in which a soft implant material is contained in a side of a filling portion, FIG. 5 is a sectional view showing the state in which the soft implant material is contained in a side of the filling portion, FIG. 6 is a perspective view showing a state in which a grip is grasped by a conventional golf glove, FIG. 7 is a perspective view of the preferred embodiment of the present invention, FIG. 8 is a perspective view showing another state in which the grip is grasped by a conventional golf glove, and FIG. 9 is a perspective view showing the preferred embodiment of the present invention.

For your understanding, the present invention will be described on the basis of a right-handed person. A golfer grasps the golf club with the middle finger, the ring finger and the little finger of the left hand and the middle finger and the ring finger of the right hand. However, it is difficult for a beginner to grasp the golf club in the above way, and so, the beginner grasps the golf club by devoting his/her energies to all fingers. That is, when the beginner wants to applying power to the three fingers of the left hand and the two fingers of the right hand, the power is applied from the little finger of the left hand to the whole arms and shoulders, and thereby, the beginner's whole body may get stiff and a natural swing is prevented. Therefore, the golfer can swing in a natural and stable posture and hit a ball at a long driver distance in an exact direction, only when the golfer swings in the proper



grasping posture of the grip of the golf club, namely, without devoting his/her energies but with a high compactability to the grip of the golf club.

5 A structure of the present invention will be described as follows.

As shown in FIGS. 1, 2 and 3, the present invention includes: a base part 2 of a general thickness and having a middle finger portion, a ring finger portion, a little finger portion, and a palm portion and a back hand portion which are  
10 integrally formed with the three finger portions; and a filling part 10 formed to be thicker than the base part 2, the filling part 10 surrounding from the first knuckle portion of the index finger to the first knuckle portion of the thumb, the filling part 10 formed by generally integrally forming the back hand  
15 portion and the palm portion of the first knuckle portion of the thumb portion, the palm portion of the index finger portion and the thenar portion of the thumb portion when the whole palm portion is divided into two from the root portion between the index finger portion and the middle finger portion(about 1/2 of  
20 the whole palm portion).

As described above, the present invention has an additional part(the filling part) added to the typical golf glove, and the additional part is formed by generally integrating the first knuckle portions 11 and 12 of the thumb portion and the index  
25 finger portion, the thenar portion 13 of the index finger portion, and a wrist portion 14.

The base part 2 has a thickness made of a common material, that is, has the same structure and material as the typical golf gloves.

30 As shown in FIGS. 1, 2 and 3, the filling part 10 can be made of the same material as the base part 2 in succession with the base part 2, or as shown in FIGS. 4 and 5, have a soft

implant material 15 mounted thereon or surrounding the exterior surface thereof to have a predetermined thickness if needed. Alternatively, a portion of the filling part 10 is made of the soft implant material 15 having different thickness from the other portion. The soft implant material 15 may be leather, rubber, silicon or others, and the golf glove can have various thicknesses according to the golfer's golf level and taste.

Describing in a view of anthropotomy, the filling part 10 presses the finger ligament connected with the thumb and the index finger and the muscle of the palm naturally, so that the golfer can swing naturally in a relaxed condition as the golf glove provides the golfer with an effect straining the ligament and the muscle. Of course, to increase the effect, the soft implant material 15 is mounted at the filling part 10 meeting with the ligament and the muscle to increase strain sensation to the ligament and the muscle. The above effect can be discovered from a case in which lots of athletes tape the muscle and ligament line to reduce fatigue of the muscle.

A function of the present invention will be compared with that of the conventional golf gloves.

First, FIGS. 6 and 8 show states in which the golfer wears the conventional golf gloves. Generally, the golfer grasps the grip of the golf club with the middle finger, the ring finger and the little finger of the left hand and with the middle finger and the ring finger of the right hand. As shown in FIG. 6, when the golfer continuously grasps the grip of the golf club with the three weak fingers, the ligament connected with the fingers is fatigued, and thereby, the golfer may catch a chronic disease such as a trigger finger (Stenosing tenosynovitis), and the grip G of the golf club may be moved within the golfer's palm when loosening grasping power.

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Referring to FIG. 7 showing a side status of the grip after

the golfer wears the glove, the thenar portion 13 of the thumb portion and the filling part 10 of the first knuckle portions 11 and 12 of the thumb portion and the index finger portion are thicker than the base part 2 so as to increase fixability to the grip G of the golf club even though the grasping power of the middle finger, the ring finger and the little finger is weak. That is, even though great power is not applied to the thumb and the index finger, compactability is applied to a portion closely touching the grip of the golf club by the filling part 10 near the first knuckle portions 11 and 12 of the thumb portion and the index finger portion, and fixability to the grip G of the golf club can be increased by the filling part 10 of the thenar portion 13 of the thumb portion even though the grasping power of the middle finger, the ring finger and the little finger is weak.

Therefore, the present invention can solve the problem of the trigger finger caused by burden of the finger ligament occurring when the golfer wears the conventional golf gloves and plays golf for a long time.

FIG. 8 shows a state in which the golfer wears the conventional golf glove and grasps the grip of the golf club. When the golfer wears the conventional golf glove and grasps the grip of the golf club, the grip of the golf club may be moved due to a gap 30 generated between the root between the thumb portion and the index finger portion and the grip G of the golf club. When the golfer tries to remove the gap 30 consciously to prevent the movement of the grip, it is difficult to do an exact swing as power is applied to the index finger and the thumb.

Referring to FIG. 9 showing a state in which the golfer wears the golf glove of the present invention and grasps the grip of the golf club, there is little gap by the filling part 10 between the index finger portion and the thumb portion. So,

the present invention provides stability of the grip, and the root between the index finger portion and the thumb portion is naturally in a close contact with the grip even though the golfer does not try to closely contact the root portion to the grip consciously. Of course, it will be appreciated that additional soft implant material 40 having the same shape as the root between the index finger portion and the thumb portion may be inserted to increase fixability. Furthermore, the filling part 10 connected to the thenar portion 13 of the thumb portion and the wrist portion 14 provides resistance to prevent bending of the golfer's wrist, thereby maintaining the fixing condition without applying power to the wrist.

As described above, the present invention can provide stability in the structure of the human body and help the golfers to play golf in a high-level posture.

#### **【Industrial Applicability】**

According to the golf glove having improved fixability and compactability for the grip, even though a beginner or a golfer, who grasps the grip of the golf club in frequent movement of the grip due to thin fingers and palm, grasps the grip, he or she can grasp the grip tightly without strong grasping power of the middle finger, ring finger and little finger of the left hand to prevent the trigger finger. In addition, the present invention helps the golfer to hit a ball to a long driver distance in an exact direction in a proper swing posture, even in a condition in which the golfer does not devote his/her energies, as having good compactability to the grip of the golf club, thereby providing the golfers with stability and technical efficiency.

**【CLAIMS】****【Claim 1】**

A golf glove having improved fixability and compactability for grip, the golf glove comprising:

5       a base part of a general thickness and having a middle finger portion, a ring finger portion, a little finger portion, and a palm portion and a back hand portion which are integrally formed with the three finger portions; and

10       a filling part formed to be thicker than the base part by integrally forming the root portion between the first knuckle portions of the index finger portion and the thumb portion, the back hand portions(11, 12) and the palm portions(11, 12) of the first knuckle portions, the palm portion of the index finger portion and the thenar portion of the thumb portion when the  
15       whole palm portion is divided into two from the root between the index finger portion and the middle finger portion(about 1/2 of the whole palm portion), and a wrist portion(14), to thereby strain the ligament and muscle of a golfer's hand and to increase bonding force to the grip of a golf club,.

20       **【Claim 2】**

The golf glove according to claim 1, wherein a portion of the filling part(10) has a soft implant material(15).

**【Claim 3】**

25       The golf glove according to claim 2, wherein the soft implant material(15) is made of rubber, silicon, leather, or the likes.

**【Claim 4】**

30       The golf glove according to claim 1, wherein the filling part(10) is filled with the soft implant material(15) and wrapped with it to be thicker.

**【Claim 5】**

The golf glove according to claim 1, wherein the filling part(10) is made of the same material as the base part(2) and thicker than the base part(2).